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Inverse multiplexing

J Duncanson, AC Inc - IEEE Communications Magazine, 1994 - ieeexplore.ieee.org ... Inverse multiplexing Duncanson, J. Ascend Commun. Inc.; This paper ... 25.0. Abstract Inverse multiplexing offers an approach to high-speed data networking that is different than many other currently fashionable network technologies. It ...

Cited by 105 - Related articles - BL Direct - All 3 versions

## Adaptive inverse multiplexing for wide-area wireless networks

AC Snoeren - Global Telecommunications Conference, 1999. ..., 1999 - ieeexplore.ieee.org ... Adaptive inverse multiplexing for wide-area wireless networks Snoeren, AC Lab. ... Inverse multiplexing is a standard application-transparent method used to provide higher end-to-end bandwidth by splitting traffic across multiple physical links, creating a single logical channel. ... Cited by 84 - Related articles - BL Direct

## The past, present, and future of inverse multiplexing

PH Fredette - IEEE Communications Magazine, 1994 - csa.com
The past, present, and future of **inverse multiplexing**. PH ... 1994. **Inverse multiplexing**refers to the process of aggregating channels to allow applications greater freedom
in selecting the optimum communication bandwidth and cost. ...

Cited by 56 - Related articles - Bt. Direct

## Generalized inverse multiplexing of switched ATM connections

FM Chiussi, DA Khotimsky, S. ..., 1998. GLOBECOM 98. ..., 1998 - leeexplore.leee.org ... Generalized **inverse multiplexing** of switched ATM connections Chiussi, FM Khotimsky, DA Krishnan, S. Lucent Technol., AT&T Bell Labs., Holmdel, NJ; This paper appears in: Global Telecommunications Conference, 1998. GLOBECOM 98. The Bridge to Global Integration. ... Cited by 60 - Related articles - BL Direct

#### [HTML] End-to-end inverse multiplexing for mobile hosts

L Magalhaes, R Kravets - Journal of the Brazilian Computer Society, 2001 - SciELO Brasil This paper presents a framework for the creation of transport protocols for mobile hosts that use multiple link layers simultaneously for the same connection. This abstraction provides an end-to-end transport layer channel between two applications that do not have to be ... Cited by 13 - Related articles - Cached - Ali 18 versions

[PDF] Performance of hashing-based schemes for internet load balancing Z Cao, Z Wang, E Zegura - IEEE INFOCOM, 2000 - Citeseer

... II. R ELATED W ORK Load balancinghas been used in telecommunicationnetworks in the form of inverse multiplexing [4]. Inverse multiplexing al- lows service providers tooffer wideband channels by combining multiple narrowband 56 kbps and 64 kbps trunks [5]. The load ...

Cited by 192 - Related articles - View as HTML - BL Direct - All 8 versions

#### [CITATION] Inverse multiplexing: Tailor made for ATM

J Frimmel - Telephony, 1996 Cited by 11 - Related articles

## [PDF] Making parallel packet switches practical

S Iyer, N McKeown - IEEE INFOCOM, 2001 - Citeseer

... Keywords--packet-switch; output-queueing; **inverse-multiplexing**; load-bal- ancing; Clos' network. ... The architecture as such is not novel and previous work [4][5][6][7][8] has described

http://scholar.google.com/scholar?as\_q=&num=100&btnG=Search+Scholar&as\_epq=inv... 12/25/2009

olore.leee.org
C Lab. ... Inverse
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### load-balancing or "inverse-multiplexing" [9][10][11][12] systems. ...

Cited by 114 - Related articles - View as HTML - Bt. Direct - All 14 versions

## ATM inverse muxing for easier access

RD Langdon - Data Communications, 1997 - csa.com

... The use of asynchronous transfer mode (ATM) **inverse multiplexing** for easier access in networks is described. ATM **inverse multiplexing** takes traffic from a relatively high-bandwidth connection and spread it across multiple lower-speed wide-area networks. ...

Cited by 9 - Related articles

## [CITATION] Inverse Multiplexing for Wide-Area Wireless Networks

AC Snoeren - Proceedings of the IEEE Conference on Global ..., 1999

Cited by 7 - Related articles

## [PDF] Stability analysis of a parallel packet switch with bufferless input ...

osu.

DSU.

DA Khotímsky, S Krishnan - ICC 2001, 2001 - Citeseer

... Keywords— **Inverse Multiplexing**, Multipath Switching Systems, Parallel Switch architectures. I. I NTRODUCTION **Inverse multiplexing** has long been known as a tech- nique to aggregate link bandwidth in the end-to-end en- ...

Cited by 54 - Related articles - View as HTML - All 5 versions

### [BOOK] Essentials of ATM networks and services

OC lbe - 1997 - portal.acm.org

... These services include ATM LAN emulation, IP over ATM, multiprotocol over ATM, frame-based access services over ATM, audiovisual multimedia services over ATM, circuit emulation service, and **inverse multiplexing** over ATM. Most of these services are still being defined. ...

Cited by 15 - Related articles - All 2 versions

## [PDF] A packet resequencing protocol for fault-tolerant multipath transmission with ...

D Khotimsky - GLOBECOM-NEW YORK-, 1999 - Citeseer
... Abstract A multipath switching system serves as a useful abstraction for achieving bandwidth

aggregation by means of switched connection **inverse multiplexing**. ... Keywords: **Inverse Multiplexing**,ATM Switches, Sequence control protocol. I. Introduction ...

Cited by 17 - Related articles - View as HTML - BL Direct - All 7 versions

## Inverse multiplexing over ATM: broadband access for less

J van der Lande - COMPUT TECHNOL REV, 1998 - csa.com

**Inverse multiplexing** over ATM: broadband access for less. Justin ... 1998. **Inverse Multiplexing** over ATM (IMA) employs ubiquitous E1/T1 circuits to provide broadband network solutions more cost-effectively than other technologies. ...

Cited by 3 - Related articles

#### [PDF] Striping within the network subsystem

uccs

CBS Traw, JM Smith - IEEE Network, 1995 - cs.uccs.edu

... higher level framing to compensate for the skew between the stripes which can result in a misordering of ATM cells [5]. One effort toward standardizing a particular application of network striping is presented by rredette [7]. He calls network striping **Inverse Multiplexing** when it is ...

Cited by 59 - Related articles - Bt. Direct - All 3 versions

## [CITATION] ... MPEG-2 coded TV signal over SDH network with inverse multiplexing ...

N Linta, M Mihailovic, D Vuletic - 1999 - TELFOR

Cited by 2 - Related articles

#### [CITATION] Inverse Multiplexing

J Duncans - IEEE Communications Magazine, 1994

Cited by 2 - Related articles

#### [CITATION] Inverse Multiplexing for ATM. Operation, Applications and Performance ...

M Aguilar, J García, M Postigo - ICATM, 1999

Cited by 2 - Related articles

#### [PDF] IP over DWDM

R Jain - Nortel Networks, November, 1999 - Citeseer

... u Clock Synchronization u Rate Multiplexing/Traffic Grooming u Rate Division/Inverse multiplexing u Fault Tolerance u Signal trace u Error Monitoring ... u Packet Switching Architecture u Protection schemes u Inverse multiplexing for higher speed pipes u QoS u Multicast Page 11. ...

Cited by 3 - Related articles - View as HTML - All 5 versions

## A study of the **inverse multiplexing** for ATM (IMA) protocol

O Isnard, JM Calmel, AL Beylot, G ... - ... Switching and Routing, ..., 2000 - leeexplore.leee.org ... A study of the inverse multiplexing for ATM (IMA) protocol Isnard, O. Calmel, J.-M. Beylot, A.-L. Pujolle, G. Nortel Networks-Wireless Solutions, Yvelines; This paper appears in: High Performance Switching and Routing, 2000. ATM 2000. ...

Cited by 1 - Related articles

#### [CITATION] Inverse multiplexing

E Edvardsen - TELEKTRONIKK, 1999 - TELEDIREKTORATET Cited by 1 - Related articles - BL Direct

## [CITATION] Guide to telecommunications transmission systems

AA Huurdeman - 1997 - Artech House Publishers Cited by 9 - Related articles

## [CITATION] Enterprise networking: fractional T1 to SONET, frame relay to BISDN

D Minoli - 1993 - Artech House Publishers Cited by 10 - Related articles - Library Search

### [PDF] On the speedup required for a multicast parallel packet switch

Silyer, N McKeown - IEEE Communications Letters, 2001 - Citeseer ... speedup of . Keywords--Clos' network; inverse-multiplexing; parallel packet switch; load-balancing; multicasting. I. I NTRODUCTION All packet switches require memories that buffer packets dur- ing times of congestion. For ... Cited by 17 - Related articles - View as HTML - BL Direct - All 13 versions

[PDF] Establishing wireless communications services via high-altitude ...

HAA PLATFORMS - IEEE Communications Magazine, 1997 - comsoc.org ... telephone network (PSTN). The return signal path toward the airborne station is similar, except for the inverse multiplexing operation in the mux and high-power amplification by the HPA. HAAP-BASED COMMUNICATIONS ...

Cited by 176 - Related articles - View as HTML - Bt. Direct - All 6 versions

### IMA: technical foundations, application and performance analysis

M Postigo-Boix, J García-Haro, M Aguilar-Igartua - Computer Networks, 2001 - Elsevier ... E3 links. The technology to cover the gap between T1/E1 and T3/E3 bandwidth at a reasonable cost is known as **inverse multiplexing** for ATM (IMA). IMA ... work. 2. **Inverse** multiplexing fundamentals and network applications. In a ...

Cited by 5 - Related articles - All 4 versions

#### [PDF] A survey of active network research

DL Tennenhouse, JM Smith, WD Sincoskie, DJ ... - IEEE communications ..., 1997 - Citeseer ... Early prototype applications include: software scalable bandwidth based on a general mechanism for inverse multiplexing, ie, network striping; and support for an active packet model ("Switchlets"). Bell Communications Research ...

Cited by 1514 - Related articles - View as HTML - BL Direct - All 52 versions

#### Super-multichannel trans-selector systems for upgradable broadbandnetworks

Y Takasaki, T Sekiguchi, M Sasagawa, T ... - ... , 1996. ICC 96, ..., 1996 - leeexplore.leee.org ... It is shown that the combined use of **inverse multiplexing** and rate adaptation can play an important role in realizing very simple and economical super-multichannel trans-selectors: all signals are converted to have a unified rate and, as a consequence, multiplexing and ...

Cited by 4 - Related articles - BL Direct

http://scholar.google.com/scholar?as\_q=&num=100&btnG=Search+Scholar&as\_epq=inv... 12/25/2009

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Page 4 of 11

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## [PDF] Supporting applications in a mobile multihop radio environment using route ...

N Gogate, SS Panwar - IEEE International Conference on ..., 1998 - Citeseer

... In general, traffic splitting could be done at any layer of the protocol stack, for example physical, data link, and network (eg **Inverse Multiplexing** is being standard- ized by ATM-PHY group in the ATM Forum). We will consider traffic splitting at the network layer and above. ...

Cited by 15 - Related articles - BL Direct - All 5 versions

## [PDF] Blocking probabilities for inverse multiplexer in public switched digital ...

KV Vu, A Nilsson - GLOBECOM-NEW YORK-, 1995 - Citeseer

... To meet the new requirements, network providers use a technique called **inverse multiplexing** which combines two or more independent switched digital channels into a single high bandwidth end-to-end connection. ... 2 **Inverse Multiplexing** . . . . . ...

Cited by 1 - Related articles - View as HTML - BL Direct - All 3 versions

### An overview of Internet protocols

A O'Neill, RC Tatham, SF Carter, G Tsirtsis, AJ ... - BT Technology ..., 1998 - Springer ... the layer 2 tunnelling protocol (L2TP). Multi-link PPP provides an **inverse multiplexing** capability in which multiple serial links are combined by the MP stack to look like a single high-speed link. MP controls the choice of which ...

Cited by 6 - Related articles - Bt. Direct - All 4 versions

## [PDF] Wireline broadband access networks

teler

LA Ims - TELEKTRONIKK, 1999 - telenor.com

... 75 Telektronikk 2/3.1999 ing, and is described in more detail in [3]. The main motivation behind **inverse multiplexing** lies in the fact that it may be a rather inexpensive way to avoid the high civil works costs of fibreoptic cable installation in the primary access network in particular. ...

Cited by 4 - Related articles - View as HTML - BL Direct

## Advanced frame recovery in switched connection inverse multiplexingfor ATM

FM Chiussi, DA Khotimsky, S ... - ATM, 1999. ICATM'99. ..., 1999 - ieeexplore.ieee.org

... Abstract Switched connection **inverse multiplexing** for ATM (SCIMA) has been proposed as a low-overhead scheme for implementing an N×N switch with a port rate of kR using a kN×kN core switch (or k N×N switches) having a port rate of R. By splitting the traffic of a small ...

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## [PDF] Analysis of a packet switch with memories running slower than the line rate

psu.

S lyer - 2000 - Citeseer

... Essen- tially, the packet-switch performs packet-by-packet load-balancing, or "**inverse-multiplexing**" over multiple ... balancing" and "**inverse-multiplexing**" systems [3][4] have been around for some time, and this architecture is a simple extension of these ideas. ...

Cited by 119 - Related articles - View as HTML - BL Direct - All 13 versions

## Traffic performance of APON and SDH rings in a FTTCab configuration

D Goderis, I Van de Voorde - Proceedings of the European ..., 2000 - books.google.com

... The first one is called **Inverse Multiplexing** for ATM (IMAI [4], The second strategy is based on Integrated SDH, ATM (ISAI overlay networking [5]. IMA enables the transport of a high bitrale ATM cell stream onto a number of lower, rate physical links, eg El lines, or SDH VC, I2s. ...

Cited by 2 - Related articles

#### [PDF] High-speed digital optical processing in future networks

istoi

D Cotter, JK Lucek - Philosophical Transactions: Mathematical, Physical ..., 2000 - jstor.org ... 2N + 2, ..., and so on). However, this would lead to a complex **inverse multiplexing** problem at the receiving end in order to identify and compensate for the different propagation times of each physical link. In the case where ...

Cited by 4 - Related articles - 8L Direct - All 6 versions

#### A reliable and scalable striping protocol

psu.

H Adiseshu, G Parulkar, G Varghese - ..., Architectures, and Protocols ..., 1996 - portal.acm.org ... lines. Thus channel striping, also known as load sharing or **inverse multiplexing**, is often used in computer networks. ... The ATM Forum is considering a standard for ATM cell strip- ing called AIM ( ATM **Inverse Multiplexing**) basedon delay compen- sation. ...

Cited by 147 - Related articles - BL Direct - All 16 versions

## [PDF] Dynamic Link Striping: Breaking the WAN Bandwidth Barrier in Piconets

hp.c

P Sharma, S Lee, J Brassil, J Lopez ... - Proceedings of LAN/ ..., 2001 - fog.hpl.external.hp.com ... [6] T. Jessup, "Emerging Technology: Balancing Act: Designing Multi-Link WAN Services", Network Magazine, June 2000. http://www.networkmagazine.com/article/NMG20000612S0008 [7] J. Ducanson, "Inverse Multiplexing". IEEE Communications Magazine, 32(4), April 1994
Cited by 1 - Related articles - View as HTML - All 3 versions

## Implementing inverse multiplexing for ATM

A Pires, M Semicond, O Kanata - ATM, 1999. ICATM'99. 1999..., 1999 - ieeexplore.ieee.org ... Implementing **inverse multiplexing** for ATM Pires, A. Mitel Semicond., Kanata, Ont.; This paper appears in: ATM, 1999. ICATM '99. 1999 2nd International Conference on Publication Date: 1999 On page(s): 340-345 Meeting ...

All 2 versions

#### Broadband over Inverse Multiplexed xDSL Modems

E Edvardsen - Lecture notes in computer science, 2000 - Springer

... Inverse multiplexing of xDSL systems is used to aggregate bandwidths in the range of 100 to 1000 Mb/s between nodes in the network. ... Keywords: Inverse multiplexing, ATM, xDSL, twisted pairs, FSAN, ITUNET 1 Background ...

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## [HTML] End-to-end inverse multiplexing for mobile hosts

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I Luiz Magalhaes, R Kravets - J. Braz. Comp. Soc, 2001 - SciELO Brasil
This paper presents a framework for the creation of transport protocols for mobile hosts that use
multiple link layers simultaneously for the same connection. This abstraction provides an
end-to-end transport layer channel between two applications that do not have to be ...
Related articles - Cached

## [CITATION] Inverse Multiplexing of IS95 Traffic for Video Transmission

M Salmanían - 1997 - Carleton University All 2 versions

## [CITATION] Inverse Multiplexing: Getting Started on the Road to ATM

J Reedy - TELECOMMUNICATIONS-NORWOOD-NORTH ..., 1995 - BPA INTERNATIONAL BL Direct

## Telemetry transmission using **inverse multiplexing** and asynchronous transfer ...

B Eslinger, J McCombe - INT TELEM CONF PROC, 1997 - csa.com

Telemetry transmission using **inverse multiplexing** and asynchronous transfer mode(ATM). ... The combination of ATM and **inverse multiplexing** allows telemetry data rates above 1.5 Megabits per second (Mbps) to be transmitted over multiple T1 (1.544 Mbps) lines. ...

BL Direct

## [CITATION] ... MULTIPLEXING: TAILOR-MADE FOR ATM-Inverse multiplexing fills ...

J Frimmel - Telephony, 1996 - Chicago, USA: Chambers-McMeal ...

#### [PDF] The telco's goldmine—50 Mb/s to the general public over the local telephone ...

E Edvardsen - Flexible Working - New Network Technologies, 1999 - cordis.lu

... The existing network is sub-divided into a small cell network, each covering an area with an approximate radius of 1 kilometre. **Inverse multiplexing** of xDSL systems is used to aggregate bandwidth in the range of 100 to 1000 Mb/s between nodes in the network. ...

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## Remote Access Concepts and Techniques

P Southwick - Local area network handbook, 1999 - books.google.com

... This technique is generically called **inverse multiplexing** and can be performed in hardware as well as software. ... Remote Access Concepts and Techniques by most remote access devices, and it is by far the more common **inverse multiplexing** approach for remote access users. ...

Related articles - All 2 versions

#### Promptus Commun. Inc.

PH Fredette - IEEE Communications Magazine, 1994 - ieeexplore.ieee.org

... The past, present, and future of **inverse multiplexing** Fredette, PH Promptus Commun. Inc.; ... Abstract **Inverse multiplexing** refers to the process of aggregating channels to allow applications greater freedom in selecting the optimum communication bandwidth and cost. ...

## [CITATION] Framework for MPLS-Based Control of Optical SDH/SONET Networks

E Mannie, EV Sharma, I Metanoia - IEEE Network, 2001

Related articles

## [CITATION] The multiplexer reference manual

G Held - 1992 - John Wiley & Sons

[CITATION] Data communication components: characteristics, operation, ...

G Held - 1979 - Hayden Book Co.

All 2 versions

## [PDF] Experiments With Remote Visual Access & On-line Space Services

OSU.

EA Kuijpers - EUROPEAN SPACE AGENCY-PUBLICATIONS-ESA ..., 1996 - Citeseer ... teleoperation. The digital video data was generated by a Twyman-Green interferometer in the CPF. Using **inverse multiplexing** techniques, several ISDN lines were used in parallel for the remote operations project. This allowed ...

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## Coding of digital imagery for transmission over multiple noisychannels

SS Channappayya, GP Abousleman, ... - ... on Acoustics, Speech, ..., 2001 - ieeexplore.ieee.org ... of digital imagery over multiple noisy channels. The proposed scheme divides the image into smaller parts that are transmitted over the individual channels of an **inverse multiplexing** system. The division or splitting is done in ...

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#### [CITATION] NetNews: re-engineering the system

D Fowler - netWorker, 1998 - portal.acm.org

... year. A number of vendors are introduc- ing new ATM switches, including Cisco, 3Com and Ascend. One of the reasons for this upsurge is the new **Inverse**Multiplexing over ATM (IMA) Interoperability Initiative, or I3. Using I3 ...

#### [CITATION] Communications Architecture for Distributed Systems, RJ Cyp

F Corr - IBM SYST J. 1978

## Image coding for transmission over multiple noisy channels usingpunctured ...

SS Channappayya, GP Abousleman, ... - Image Processing, ..., 2001 - ieeexplore.ieee.org ... of digital imagery over multiple noisy channels. The proposed scheme divides the image into smaller parts that are transmitted over the individual channels of an **inverse multiplexing** system. The division or splitting is done in ...

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#### Real broadband access over twisted-pair networks

E Edvardsen - Proceedings of SPIE, 1998 - link aip.org

... Inverse multiplexing of xDSL systems is used to aggregate bandwidth in the range of 100 to 1000 Mb/s between nodes in the network. ... Inverse multiplexing of xDSL systems is used to aggregate bandwidth in the range of 100 to 1000 Mb/s between nodes in the network. ...

All 3 versions

#### Analysis of a packet switch with memories running slower than theline-rate

Silyer, A Awadallah, N McKeown - IEEE INFOCOM 2000. ..., 2000 - leeexplore.leee.org

... multiplexed) before departing from the system. Essentially, the packet switch performs packet-by-packet load-balancing, or "inverse-multiplexing" over multiple independent

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packet switches. Each lower-speed packet switch, operates ... Related articles

## SNMP management for ATM

GV Mouradian - Journal of Network and Systems Management, 1995 - Springer ... of services such as the Available Bit Rate (ABR) service. Recently, work has started in the ATM Forum Physical layer work group to define a SNMP MIB for ATM Inverse Multiplexing. In the IETF, at least two other work groups ... Bt. Direct

## [CITATION] ISCC 2000 Proceedings: Fifth IEEE Symposium on Computer and ...

S Tohmé, M Ulema - 2000 - IEEE

#### Network Architectures and Performance

DE Sharp - Network design: principles and applications, 2000 - books.google.com ... The three new ATM specifications approved by the ATM Forum in mid- 1997, Multiprotocol over ATM (MPOA), LAN Emulation (LANE), and **Inverse Multiplexing** over ATM (IMA), have opened additional networking areas to 426 Page 444. ...

Related articles - BL Direct - All 6 versions

### A cooperative approach to user mobility

R Kravets, C Carter, L Magalhaes - ACM SIGCOMM Computer ..., 2001 - portal acm.org ... results in much higher throughput than TCP. The same **inverse multiplexing** techniques can be extended from a single host to the multiple external interfaces of a MOPED. The same restrictions apply, namely that throughput ... Cited by 34 - Related articles - BL Direct - All 19 versions

## [PDF] Multi-Link Iridium Satellite Data Communication System

MA Jabbar - 2001 - Citeseer

... Since the Iridium satellite system provides a low bandwidth that is not sufficient to support most of the data applications, **inverse multiplexing** technique is used to combine multiple satellite ... Multi-link point-to-point protocol is used to implement packet level **inverse multiplexing**. ... Cited by 3 - Related articles - View as HTML - All 9 versions

[PDF] IP/ATM integrated services over broadband access copper technologies

A Azcorra, D Larrabeiti, EJ Hernandez- ... - IEEE Communications ..., 1999 - it.uc3m.es ... deployment of fiber are also underway. ACTS project AC309 ITUNET [15] is evaluating a full-copper solution employing **inverse multiplexing** of ATM over VDSL, together with statistical multiplexing. ITUNET splits a geographical area ...

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## [PDF] Service Profile-Aware Control Plane: A Multi-Instance Fixed Point ...

VPN Granularity - 1999 - ittc.ku.edu

... 100 8.3.3 ITU and SPA-Dedicated control plane model ..... 101 8.3.4 SPA-Shared- Static load partitioning and disabled **inverse multiplexing** (without NE, without IM).... 102 ... All 3 versions

### MMTP: multimedia multiplexing transport protocol

L Magalhaes, R Kravets - ACM SIGCOMM Computer ..., 2001 - portal.acm.org Page 1. MMTP - Multimedia Multiplexing Transport Protocol Luiz Magalhaes and Robin Kravets Department of Computer Science University of Illinois, Urbana-Champaign 1304 W Springfield Avenue Urbana, IL 61801 {magalhae,rhk}@cs.uiuc.edu ...

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## [PDF] Implementing Distributed Packet Fair Queueing in a Scalable Switch ...

RM White - 1998 - Citeseer

Page 1. Implementing Distributed Packet Fair Queueing in a Scalable Switch Architecture by Donpaul C. Stephens Submitted to the Department of Electrical and Computer Engineering in partial fullIment of the requirements for the degree of ...

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## An architecture for packet-striping protocols

OSU.

A Hari, G Varghese, G Parulkar - ACM Transactions on Computer ..., 1999 - portal.acm.org

... The striping unit can be a bit or a byte or a bigger aggregation. Bit or byte interleaving is often done at the hardware level using devices known as inverse multiplex- ers. We discuss two hardware **inverse multiplexing** schemes in detail in the section on related work. ...

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## [PDF] Approximation to the CLR in ATM switches with multiserver output discrete ...

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M Aguilar, F Barceló, P Iserte - IFIP Workshop TC6, ATM'98, 1998 - Citeseer Page 1. Sixth IFIP Workshop on Performance Modelling and Evaluation of ATM Networks, Ilkley, UK, 20-22 July, 1998. 63/1 Approximation to the CLR in ATM switches with multiserver output discrete queues and priority. Mónica ...

Cited by 4 - Related articles - View as HTML - All 3 versions

## Sandias network for SC97: Supporting visualization, distributed cluster computing, ...

TJ Pratt, LG Martinez, MO Vahle, TV Archuleta, VK ... - 1998 - osti.gov

... The current routing protocols allow for some parallelism to provide load balancing and redundancy across multiple physical paths. In the future, these routing protocols will also provide some **inverse multiplexing** capabilities. ...

Related articles - All 2 versions

## The integration of ISDN into a multi-functional visual communications network

R Beckwith - ISDN: applications in education and training, 1994 - books.google.com ... level of technology. Videoconferencing needs expensive and/or proprietary codecs and/or channel **inverse multiplexing** techniques. Another problem is that large image files still take a long time to transmit. Primary Rate ISDN ...

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## [PDF] Systems Aspects of APON/VDSL Deployment

fie-e

L Verpooten, A Granger, A Telecom - IEEE Communications Magazine, 2000 - fie-epn.net ... Two techniques can be applied to improve statistical multiplexing on a SONET/SDH ring: inverse multiplexing for ATM (IMA) and inte- grated SDH-ATM (ISA) [8]. IMA enables the transport of a high-bit-rate ATM cell stream onto a multiple of lower-bit-rate SONET/SDH VCs (eg, n ...

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### Convergence of IP Based and Optical Transport Networks

A Lason, A Manzalini, G Chatzilias, L Raptis, D ... - Lecture notes in ..., 2000 - Springer ... considered as to the bandwidth management of leased OChs. This special service might be offered when the **inverse multiplexing** of OTN, eg, OCh virtual concatenation is available. Different potential ways to set-up OCh services ...

BL Direct - All 6 versions

#### Interworking between SDH and OTN-based transport networks

A McGuire, AJ Flavin - BT Technology Journal, 2001 - Springer

... considered. The following sections elaborate on how OTN modem functionality can be achieved by means of a new mapping that utilises the SDH variant of **inverse multiplexing** — virtual concatenation. 4. Concatenation SDH ...

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## [PDF] Lightwave Micromachines for Optical Networks: Vast Promise Amid Vaster ...

jayw

E Goldstein, L Lin, JA Walker - Optics & Photonics News, 2001 - jaywalkertc.com

... These systems provision and mesh-restore wavelengths at a granularity of 155 Mb/s to 2.5 Gb/s. They also provision and mesh-restore 10-Gb/s wavelengths via **inverse multiplexing** down to the basic switch rate, with the capability of grooming such sub-rate signals within a ...

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## Routing in Packet-Switched Networks Using Path-Finding Algorithms

S Murthy - 1996 - Storming Media

Page 1. University of California Santa Cruz Routing in Packet-Switched Networks Using Path-Finding Algorithms A dissertation submitted in partial satisfaction of the requirements for the degree of Doctor of Philosophy in Computer Engineering by Shree Murthy September 1996 ...

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## [PDF] IP/ATM Integrated Services over Broadband Access Copper Technologies

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J Berrocal - IEEE Communications Magazine, 1999 - comsoc.org

... underway. Advanced Communications Technologies and Systems (ACTS) project AC309, ITUNET [10], is evaluating a full-copper solution employing **inverse multiplexing** of ATM over VDSL, together with statistical multiplexing. ...

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## [PDF] ENGINE access ramp- the next-generation access architecture

erici

JO Andersson, P Linder - ERICSSON REV(ENGL ED), 2000 - ericsson.com

... If even greater capacity is needed, dense wavelength-division multiplexing (DWDM) can be introduced. Initially, in the absence of fiber, various solutions for transport over copper can be applied, including T1, E1, E3, DS3, and **inverse multiplexing**...

All 7 versions

## [PDF] Communications technologies in collaborative design

mit.«

JR Williams - 1997 - dspace.mit.edu

Page 1. Communications Technologies in Collaborative Design by Dennis R. Shelden BSAD, Massachusetts Institute of Technology '88 Submitted to the Department of Civil and Environmental Engineering in partial fulfillment of the requirements for the degree of ...

Related articles - All 2 versions

## [PDF] ATM for Naval Applications

argr

J Airst, D Aschkenasy, DL ... - MILCOM 1999: IEEE ..., 1999 - argreenhouse.com

... Approved 2/99 **Inverse Multiplexing** over ATM (IMA) V1.1 af-phy- 0086.001 Combines multiple T1's into an aggregate output. Approved 4/99 PNNI Mobility Extensions V1.0 af-ra-0123.00 Reroutes connections as the user transitions satellite spot beams or base stations. ...

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